CHAPTER TWO
MANAGEMENT OF NONPOINT SOURCES OF POLLUTION

CHAPTER OUTLINE

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- Water pollution from aerial fallout

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- Comprehensive Environmental Response, Compensation and Liability Act
- Toxic Substances Control Act
- Federal Insecticide, Fungicide and Rodenticide Act
- Clean Air Act

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- Soil Conservation Service

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- Texas Health and Safety Code
- Texas Clean Air Act

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- Texas Water Development Board
- Texas Air Control Board

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- City of Richwood

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EXISTING AND POTENTIAL ENVIRONMENTAL IMPACTS

Nonpoint source (NPS) water pollution may be transmitted by urban runoff, groundwater infiltration, or aerial fallout. Unlike a point source of pollution, such as a wastewater treatment discharge, NPS pollutants have usually been diffused spatially and over time. As a result, the origins and extent of NPS pollution are difficult to quantify. Though regulations

will soon go into effect requiring municipalities to develop NPS management practices, such controls are generally not in place today.

The potential impact of agricultural practices on freshwater inflows is an important issue to Christmas Bay. The irrigation, drainage and stormwater runoff from rice farms is not directly regulated. Changes in flow and accumulation of agricultural chemicals in the receiving waters are not known.

Potential NPS problems associated with storm sewer systems include illicit commercial and industrial discharges and the disposal of household hazardous wastes. Local governments in the watershed monitor for illicit discharges, but enforcement is difficult. Individuals disposing of household hazardous wastes, such as used oil and solvents, into the municipal drainage system may also generate considerable NPS pollution.

NPS pollution may also occur underground. Septic tanks, underground storage tanks, and oil and gas wells are all possible contributors to groundwater contamination in the watershed. Another potential NPS pollutant is leachate from landfills and hazardous waste sites. There is currently one active landfill in the watershed, and one additional landfill permit has been submitted. Two unauthorized dump sites also are located within the watershed. These solid waste disposal sites are shown on the map on page 27.

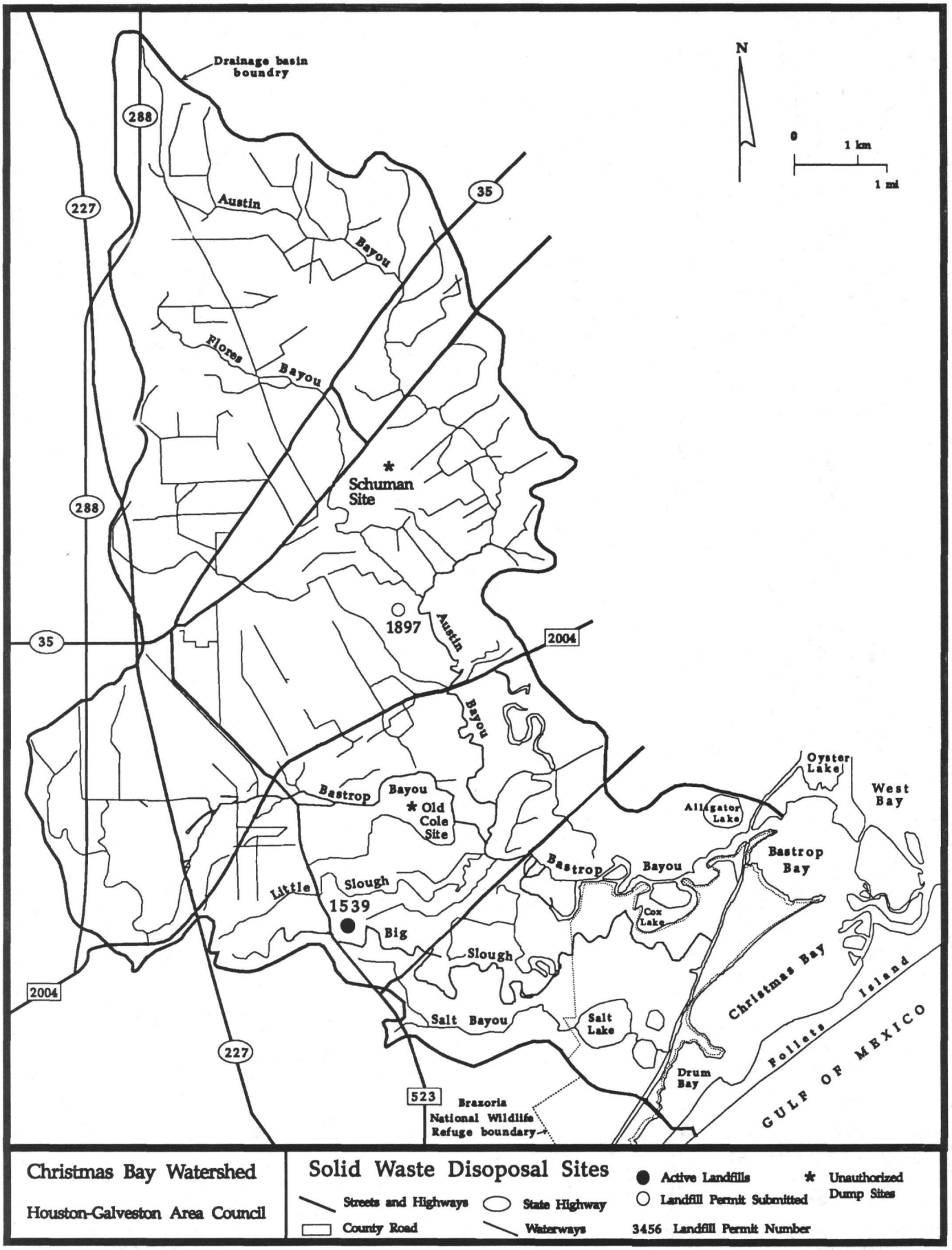
The potential for airborne contaminants to enter the water is also an NPS threat. The watershed contains three facilities with Texas Air Control Board permits for air emissions. Such emissions may include a variety of substances which can enter the water through rainfall, fog or dust. The impact and extent of aerial fallout is very difficult to monitor and study, though the amount of direct fallout is generally thought to increase with proximity to the emission source. Other activities with potential air pollution impacts are located in the Brazosport area, to the west of the watershed. Brazosport has a high concentration of petrochemical industries which emit various types of pollutants, including benzene, hydrocarbons and cyanide. Permitted air emissions within the Christmas Bay watershed are shown on the map on page 28.

LEGISLATIVE SUMMARY

Federal Legislation

Federal Water Pollution Control Act (Clean Water Act)

The Clean Water Act (CWA) provided the foundation for the National Pollutant Discharge Elimination System (NPDES). This program made a federally authorized permit necessary for the discharge of any pollutant into navigable waters from a point source. Under this broad definition, stormwater outfalls associated with both municipal and industrial drainage systems were considered point sources of pollution and would require an NPDES permit. Hazardous & Solid Waste Amendments to RCRA, EPA's first municipal stormwater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Brazoria National Wildlife Refuge boundary
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Cox Lake
Christmas Bay
Salt Lake
Drum Bay
Follets Island
GULF OF MEXICO
Christmas Bay Watershed
Houston-Galveston Area Council
Solid Waste Disoposal Sites
Streets and Highways
State Highway
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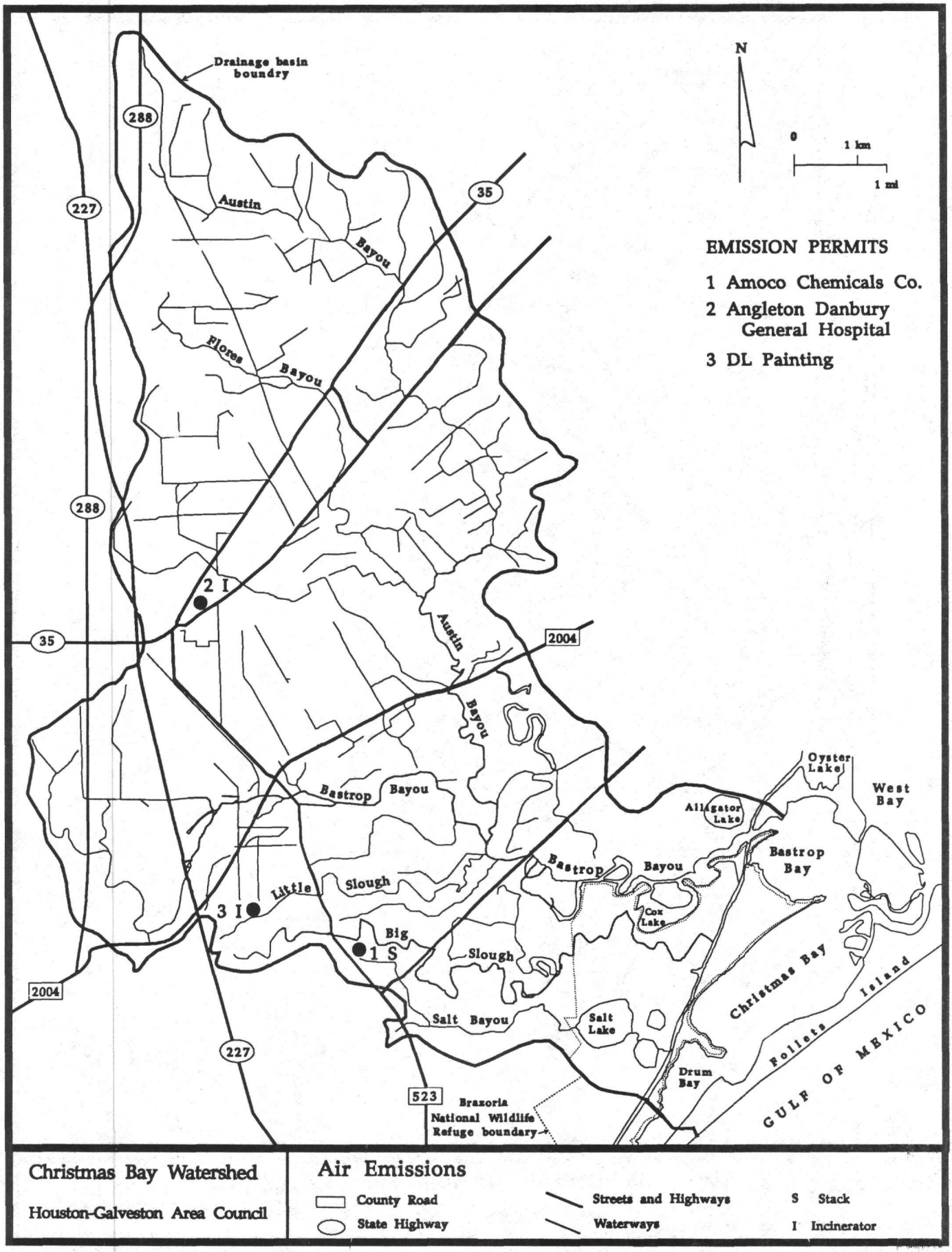
Waterways
Active Landfills
Landfill Permit Submitted
3456 Landfill Permit Number
Unauthorized Dump Sites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Brazoria National Wildlife Refuge boundary
Christmas Bay Watershed
Houston-Galveston Area Council
Air Emissions
County Road
State Highway
Streets and Highways
Waterways
S Stack
I Incinerator

regulations were issued in 1973. Over the next fourteen years, several iterations of these regulations were developed. The concept of an "area permit," covering an entire system rather than one for each outfall evolved over this time. However, all of the proposed and final rules met with negative response, as well as legal action, and the municipal stormwater permit program was never actually implemented.

Water Quality Act (WQA) of 1987, Section 405

The Clean Water Act was amended by Section 405 of the WQA, which established basic provisions for controlling stormwater pollution. Section 405 cancelled previous stormwater permit requirements and set forth a new regulatory framework. The system-wide permitting concept was maintained and systems were divided into three categories: industrial and large municipal systems (serving a population of 250,000 or more); medium municipal systems (serving populations of 100,000 to 250,000); and all others.

Stormwater as defined by the WQA includes surface runoff and street wash water. Sampling, testing, and quantitative characterizations will focus on major outfalls of thirty-six inches or more in diameter or those draining an area of fifty or more acres. Also included in this category are outfalls draining industrial areas of two or more acres through a twelve inch diameter or larger pipe.

Water Quality Act, Section 319

The Water Quality Act also established NPS assessment and management requirements for states and authorized approximately $400 million from 1988-91 to assist states with NPS management programs. Under Section 319, each state is required to identify water bodies significantly impacted by NPS pollution, as well as specifying and categorizing NPS pollutants. In addition, states are required to include an evaluation of existing NPS control procedures and programs. The statewide assessment for Texas, which was conducted by the Texas Water Commission (TWC) in 1988, did not contain any stream segments in the Christmas Bay watershed.

Another requirement of Section 319 was the development of statewide NPS management programs by 1991. These programs are to include the identification of the "best management practices" (BMP's) to reduce loadings from each problem pollutant category identified in the assessment.

The Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to regulate the management of solid and hazardous waste, although it was not fully implemented until the 1980's. Under RCRA, the EPA is responsible for categorizing wastes and their life cycles, defining hazardous wastes, developing control standards, and establishing a permit program for hazardous waste treatment, storage, and disposal facilities.

The 1984 Hazardous and Solid Waste Amendments (HSWA) to RCRA prohibited land disposal of many types of hazardous wastes and required the use of special containment and

collection facilities to prevent groundwater contamination. The HSWA also established a new program for regulating underground storage tanks.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
Commonly known as the Superfund Act, CERCLA was enacted in 1980 in response to the growing number of abandoned and often undocumented hazardous waste sites. The purpose of the Act was to provide emergency response and clean-up capabilities for chemical spills and releases from hazardous waste treatment, storage, and disposal sites. CERCLA authorized the EPA to require "responsible parties" to clean up hazardous waste sites. This notion of "responsible party" gave the EPA an opportunity to address not only those parties who owned and operated the facilities, but also those who generated or transported the wastes.

Toxic Substances Control Act
The 1976 Toxic Substances Control Act (TSCA) regulates the production, processing, distribution, use, and disposal of hazardous materials. TSCA provides for the control of hazardous materials by authorizing the EPA to identify and regulate such substances. The principal purpose of this Act is to identify, reduce, and eliminate chemicals which may pose unreasonable risks to human health or the environment.

TSCA requires the chemical industry to submit records to the EPA which demonstrate that the manufacture, processing, use, and disposal of chemical substances do not cause undue health and environmental effects. The TSCA also addresses marine waste disposal by regulating disposal of wastes contaminated with PCB's.

Federal Insecticide, Fungicide, and Rodenticide Act
The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), first enacted in 1947, is similar to the TSCA, however, it addresses only pesticides. The last amendment to FIFRA, passed in 1980, altered the focus of the Act from pesticide quality control to the protection of public health and the environment.

FIFRA mandates the EPA to register new pesticides to ensure that when properly used, they will not pose an "unreasonable" risk to human health and the environment. The pesticide registration process includes all pesticides marketed within the United States and requires specific tests to demonstrate that the pesticides will not cause adverse effects to humans or the environment. Primary enforcement for pesticide violations is carried out by states, under EPA oversight.

Clean Air Act
The Clean Air Act (CAA) of 1970 and its subsequent amendments seek to "protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare." The CAA creates a system of national ambient air quality standards designed to control designated "criteria pollutants."

The national ambient air quality standards include limitations on the release of hazardous substances and standards for new stationary and motor vehicle sources. States are granted primary responsibility for the implementation, maintenance, and enforcement of air quality standards through a State Implementation Plan (SIP). The SIP focuses attention on areas of the state that do not meet federal emission standards for criteria air pollutants and contains implementation and monitoring standards.

Numerous amendments to the Clean Air Act were passed during the most recent session of Congress, including new ambient air quality standards, attainment deadlines, and the classification of additional air toxics.

Texas Legislation and Regulations

Texas Water Code

The Texas Water code authorized the Texas Water Commission (TWC) and the Texas Soil and Water Conservation Board (TSWCB) to promulgate regulations to reduce NPS pollutants, such as erosion, sedimentation, and agricultural and urban runoff. The TWC is currently developing its statewide NPS management plan but has not, as yet promulgated these regulations. The TSWCB has not developed regulations either but is continuing to expand its education programs.

Under the Water Code, the TWC enforces rules and regulations concerning the protection and preservation of underground, subterranean, and percolating water. The owner of a water well which has salt water or water containing minerals or other substances which negatively affect vegetation or agriculture is required to securely plug or case the well. This requirement is intended to prevent water from escaping from the stratum into another water-bearing stratum or onto the surface of the ground.

Texas Natural Resources Code

The Texas Natural Resources Code establishes the Texas Railroad Commission (RRC) as the state regulatory agency for waste disposal and pollution associated with oil and gas drilling. Under the Code, the RRC regulates injection wells, pipelines, drilling, and plugging oil and gas wells. The RRC has the authority under the Natural Resources Code to control NPS from oil and gas operations, but has not established a control program. The RRC will enforce whatever requirements are established under the NPDES program upon delegation from EPA.

Texas Health and Safety Code (S.B. 1519)

Texas Senate Bill 1519 mandates solid waste management planning on the state, regional and local level and established a fifty cent per ton solid waste disposal fee. This legislation creates a planning framework for waste reduction and facility siting issues appropriates additional funding for enforcement of illegal dumping and inspection of existing landfills. The requirements of this Act are codified in the Texas Health and Safety Code in Chapter 363.

Texas Clean Air Act
The Texas Clean Air Act (TCAA) seeks to safeguard the state's air resources from pollution by controlling or abating air pollution and emissions of air contaminants. The TCAA authorizes the Texas Air Control Board (TACB) to formulates requirements for industrial emissions of air contaminants and to control emissions from the burning of waste and combustible material.

Local Ordinances
Aside from ordinances prohibiting non-permitted discharges into municipal storm sewer systems, there is no local regulatory framework for NPS management. However, municipal zoning or subdivision ordinances could be employed to limit certain types of land uses in areas such as aquifer recharge zones or sensitive watersheds. Additionally, construction regulations could also be used to require measures to reduce NPS from soil erosion. It is anticipated that these types of provisions will be incorporated into local government codes as a result of forthcoming EPA and TWC regulations.

FEDERAL REGULATORY AGENCIES

U.S. Environmental Protection Agency

Stormwater Runoff
Under the Clean Water Act (CWA), the Environmental Protection Agency (EPA) has major responsibilities for NPS water pollution management. EPA recently completed final rules for a stormwater discharge permit program that may require some industries and governmental entities in the Christmas Bay watershed to apply for National Pollution Discharge Elimination System (NPDES) permits for stormwater outfalls. In effect, this program proposes nonpoint source controls for regulation as a point source discharge.

Participation in the program is determined by population size, so the release of 1990 Census data in April 1991 may bring additional communities under the permit program. The program places municipal storm sewer systems into categories based on the size of the populations they serve: "large" systems serve a population of 250,000 or more; "medium" systems serve between 100,000 and 250,000; and all others serve under 100,000. Brazoria County, the storm drainage management agency for the Christmas Bay watershed, falls within the second group. A two-part permit application process will be required of each large and medium system. Large systems must submit their Part 1 applications within 12 months after the EPA publishes its regulations, and Part 2 applications are due 24 months after publication. Medium systems must submit Part 1 applications within 18 months, and Part 2 applications within 30 months of publication. In their Part 1 applications, municipalities must provide background information on their storm sewer systems, sources and discharges, and existing management programs. Part 2 applications will require greater

detail on sources and discharges, as well as proposals for new management programs and a fiscal analysis. According to EPA staff, many of the program's requirements are similar to those which were proposed in 1988, including the need to perform field screening for illicit connections and illegal dumping. Municipalities also must monitor representative outfalls during several storm events to complete certain required analyses.

With regard to industrial permits, all industrial stormwater discharges will now require a permit whether the discharge is made directly to waters of the United States or to a municipal storm sewer system. Under the 1988 draft regulations, only the direct dischargers would have needed a permit.

Prior to the release of the new regulations, some individuals proposed establishing permits on a watershed basis. However, while representing a more comprehensive approach to the NPS issue, multi-jurisdictional permits may have administrative, financial and legal shortcomings.

In general, NPDES stormwater permits will require sampling, testing, and quantitative characterization of major municipal storm sewer discharges. The permits also will require management and control techniques to reduce the discharge of pollutants to the maximum extent practicable (MEP). The proposed structure of permit applications will promote the development of comprehensive stormwater quality management programs to achieve MEP goals.

The proposed rule leaves considerable discretion to EPA in reviewing permits. This discretion provides for flexibility in interpreting regulations in different regions, but it also is a cause of concern because of the uncertainty over what will constitute an acceptable NPS management program.

Groundwater Contamination

Another role of EPA is the protection of groundwater resources, including the regulation of hazardous waste transport and disposal. RCRA and CERCLA give EPA significant responsibilities for the management of hazardous and other solid wastes as it pertains to groundwater protection. These responsibilities include: identifying general hazardous waste characteristics and specific hazardous wastes; enforcement of RCRA regulations; developing standards applicable to generators and transporters of hazardous waste, and operators of hazardous waste treatment, storage and disposal facilities; and, helping states develop comprehensive programs for managing non-hazardous solid waste.

The Superfund Program gives EPA the authority to take remedial actions for sites listed on the National Priorities List. It also allows EPA to take immediate short term removal actions where a situation or site poses an imminent threat, including hazardous chemical spills, improper disposal of hazardous materials or other immediate dangers.

In the area of solid waste management, EPA's proposed changes to "Subtitle D" of RCRA will establish more stringent requirements for the siting, design, and operation of landfills. Among the new requirements will be the addition of leachate collection and groundwater monitoring systems. Thirty-year post-closure maintenance will also be required. Final Subtitle D regulations are expected to be issued in early 1991.

Air Quality

The Clean Air Act sets air quality standards for criteria pollutants which EPA is responsible for implementation through State Implementation Plans (SIP). The Texas Air Control Board (TACB) is the state agency responsible for SIP development. Under the SIP, the TACB has been delegated responsibility for monitoring, enforcement and establishing regulations. Substantial revisions to the Clean Air Act were passed during the most recent session of Congress, including new ambient air quality standards, attainment deadlines, and the classification of additional air toxics.

Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA) is responsible for the administration of the National Flood Insurance Program (NFIP) and emergency response in the case of natural disasters such as floods or hurricanes. To participate in the NFIP, communities must satisfy FEMA regulations for floodplain management. Each of these generally include requirements and restrictions for building permits, development plan review, and location of septic tank systems within the floodplain. These requirements can allow a community control over certain nonpoint sources of pollution. Of primary importance are sediment from erosion, septic tank discharges, and location of hazardous materials storage. All of the cities within the ChristmasBay watershed participate in the National Flood Insurance Program.

U.S. Soil Conservation Service

The U. S. Department of Agriculture Soil Conservation Service's (SCS) role in the Christmas Bay watershed is to provide technical assistance on request in the area of renewable natural resources. NPS activities involving the SCS are primarily aimed at limiting sediment contributions through soil erosion control. When requested, SCS will assist local jurisdictions to develop resource management plans, ordinances, policies or regulations. However, the SCS itself does not have regulatory authority in these areas.

Texas Water Commission

As the lead state agency for water quality management, the Texas Water Commission (TWC) is responsible for implementing NPS management activities. Upon delegation of NPDES authority by EPA, the TWC will have the responsibility to administer the stormwater permit program. Proposed rules for the Municipal Water Pollution Control and Abatement Program contain requirements for storm sewer discharges and runoff and erosion control. These rules are currently undergoing review by other public agencies and interested parties and are expected to be issued in early 1991.

TWC is the State Coordinating Agency under the State Flood Control and Insurance Act of 1969. This Act authorizes political subdivisions to implement necessary actions to qualify for the National Flood Insurance Program. TWC provides floodplain management technical assistance to local governments and assists FEMA on monitoring visits to local governments. These monitoring visits or "assistance contacts" are used to determine if local governments are having problems complying with FEMA regulations and if so, to provide assistance.

The TWC also has jurisdiction over the following activities: hazardous waste management (permits, enforcement and planning); response to spills of oil and hazardous material; administration of the state's hazardous waste injection well program, and the regulation of water wells.

Hazardous and Solid Waste Division

The Hazardous and Solid Waste Division of TWC processes applications and issues permits for storage, treatment and disposal of industrial solid wastes and hazardous wastes. The TWC permits underground injection wells and maintains a registration file of hazardous and solid waste generators, transporters and facilities. The TWC also regulates small quantity hazardous waste generators and responds to Superfund site problems through authority delegated by EPA. Additionally, the TWC administers the State Superfund Program, which provides for response to sites not on the National Priority List.

Water Rights and Uses Division

The Water Rights and Uses Division administers the Underground Storage Tank (UST) Program using standards developed by EPA for regulating UST's and dealing with leaking underground storage tanks (LUST) under the Hazardous and Solid Waste Amendments. The program includes a registration element for identifying underground storage tanks throughout the state (about 150,000). In addition, the Division provides groundwater protection services and addresses environmental and safety problems associated with underground storage tanks.

Field Operations Division

The Field Operations Division oversees the local TWC district offices. The District 7 Office, located in Houston, is responsible for monitoring surface and groundwater quality, hazardous and solid waste, and underground storage tanks. This office responds to citizen complaints and emergency situations such as hazardous materials spills.

TWC shares spill response authority with the Texas Railroad Commission (RRC) for spills of harmful amounts of crude oil occurring during transportation or in coastal waters. Spill response is handled in accordance with the "State of Texas Oil and Hazardous Substances Spill Contingency Plan". This plan defines a harmful amount of crude oil spilled on the ground to be five or more barrels. Any quantity spilled in water is considered to be harmful. TWC will take the lead in directing and approving the cleanup of a spill of a harmful quantity of crude oil from a truck on a highway, from a railcar, or from a vessel. Spills under the authority of the TWC are to be reported to the district office and/or the Texas Emergency Response Center located in Austin.

Texas Railroad Commission

The Texas Railroad Commission (RRC) regulates handling, transportation, reclamation or disposal of waste materials resulting from activities associated with the exploration, development, or production of oil, gas, or geothermal resources. Through a series of Statewide Rules, the RRC regulates the casing, cementing, drilling, and plugging of oil and gas wells. The RRC's jurisdiction also covers waste from the transportation of oil prior to refining and gas prior to its use in any manufacturing process or as a residential or industrial fuel.

Statewide Rule 8 expressly prohibits oil and gas operators from causing or allowing the pollution of surface or ground water. However, incidents of accidental flow line breaks, tank leaks or overflows, and other similar problems are not completely unavoidable because of mechanical or electrical failures. Best Management Practices (BMP's) employed by the RRC to address these situations include the use of educational seminars to inform oil and gas operators and other interested persons about RRC rules and procedures relating to surface and ground water protection.

Though the RRC has the authority to develop an NPS management program for oil and gas activities, no such program is currently in place. However, upon Texas' receiving NPDES designation from the EPA, the RRC will be responsible for the permitting of discharges from oil and gas operations.

Texas Department of Health

Landfill Regulation

The Texas Department of Health's (TDH) Bureau of Solid Waste Management is responsible for developing municipal solid waste management regulations to maintain and protect the public health. The Bureau is responsible for permitting and inspection of solid waste management facilities and investigation of illegal waste sites. The Bureau also monitors groundwater and surface water around active and closed municipal solid waste sites in order to prevent contamination of groundwater. There is one active landfill within the Christmas Bay watershed, and an additional landfill permit has been submitted. Two unauthorized dump sites also have been identified.

The Bureau has established standards for the siting, design, construction, operation, and maintenance of solid waste management facilities, most of which are equivalent to those developed by the EPA. The Bureau coordinates with the TWC and TACB in solid waste management facility permitting to insure that sites are placed in such a location as to protect the public health of adjacent land owners. Public health considerations in the siting process include: adjacent land uses; groundwater monitoring; liner systems; runoff protection; cover requirements; air emissions; and buffering requirements. The TDH takes the lead in aspects concerning public health during the permitting process. Once permitted, municipal solid waste management facilities are routinely inspected to insure their continued appliance to operational standards. Inspection continues for up to five years past closure.

EPA's proposed "Subtitle D" landfill regulations will be much more stringent than current TDH requirements and will require significant new enforcement efforts. However, TDH has significantly increased its monitoring and enforcement program through a fifty cent per ton solid waste disposal fee established by the 1989 Texas Legislature.

Septic Tank Regulation

The design, installation and operation of on-site sewerage facilities (OSSF), or septic tanks, is regulated by TDH through agency-developed standards and criteria. It is also the general policy of TDH to promote local regulation of OSSF. Local governments are encouraged to develop their own on-site waste disposal orders. However, they must use TDH standards, at a minimum. TDH is also required to review all local governments' OSSF regulatory programs.

Texas Soil and Water Conservation Board

The Texas Soil and Water Conservation Board (TSWCB) is the designated agency for implementing state laws concerning the protection and conservation of soil resources. The TSWCB encourages and assists in formulating local management plans for establishing standards for agricultural and silvicultural practices. Coordination for plans is dependent on agreements with the landowner and the SCS.

Texas Water Development Board

The Texas Water Development Board was delegated authority for administering the State Revolving Loan Fund in April, 1988. The Board's involvement in nonpoint source management focuses on the eligible use of these loan funds for projects which implement the State Nonpoint Source Management Program. Currently there are no such projects targeted for the Christmas Bay watershed.

Texas Air Control Board

The Texas Air Control Board (TACB) operates under statutory authority of the Texas Clean Air Act. The TACB is responsible for the development and maintenance of the state plan for air quality management. TACB develops and enforces air pollution regulations and conducts engineering reviews of proposed new stationary sources to ensure that abatement technologies and systems meet standards.

The state plan for air pollution control is the Statewide Implementation Plan (SIP). This document describes the administrative and operational methods to be used to meet Federal Clean Air Act requirements. The major goal of the SIP and the federal requirements is to accomplish emission reductions.

Permitting authority for most air emissions activities is under the jurisdiction of the TACB. Permits are required for construction or operation of any facility that has the potential to emit pollutants into the atmosphere. However, the TWC and the TDH have jurisdiction for toxic and solid waste incinerator permits, respectively. Guidelines and performance standards for regulations and permits are contained in the Federal CAA, the Texas CAA and TACB rules. The permit applications undergo a review process to evaluate facility plans and specifications.

LOCAL REGULATORY AGENCIES

Municipalities

Illicit discharges into the storm sewer system represent a potential source of nonpoint source water pollution. Responsibility for storm drainage in the Christmas Bay watershed is shared between the municipalities and County Drainage Districts. Angleton is served by the Angleton Drainage District, Richwood and Lake Jackson by the Velasco Drainage District, and Danbury by the Danbury Drainage District.

The cities of Angleton, Lake Jackson and Richwood all have subdivision ordinances and zoning. Applications for subdivision plats and building permits are reviewed both by these cities and the impacted drainage district to ensure compliance with storm drainage

requirements. As the City of Danbury does not have a zoning or subdivision ordinance, all development is reviewed by the Brazoria County Engineer.

While zoning is a potential tool for regulating inappropriate land uses in water well recharge zones, as well as other BMP's, none of the local governments in the watershed uses zoning in this manner. By the same token, local storm drainage requirements for development do not have an NPS element.

Brazoria County

Groundwater contamination is another NPS concern. Septic tanks are one potential contamination source. The Brazoria County Health Department, in conjunction with the County Engineer's Office, regulates septic tanks in the county's unincorporated areas. The Environmental Health Division also checks on complaints related to the surface discharge of all septic tank systems.

The County issues septic system permits based on Texas Department of Health rules and regulations. This process includes initial inspections during installation, but there is no regular inspection schedule for operating septic systems, although impromptu inspections may occur.

As mentioned above, Brazoria County's drainage districts share with local governments the responsibility for maintaining storm drainage systems. The County Engineer also reviews proposed development in conjunction with the cities of Angleton, Lake Jackson and Richwood. The County is the sole reviewing agency in Danbury and unincorporated parts of Brazoria. However, neither local zoning nor other drainage requirements in the County provide for the management of nonpoint source pollution.

OTHER LOCAL AGENCIES

Houston-Galveston Area Council

Under the Texas Health and Saftey Code, the Houston-Galveston Area Council (H-GAC) is the state-designated solid waste planning agency for the upper Gulf Coast region. Over the next two years, H-GAC will be working with local governments, including all of those in the Christmas Bay watershed, to prepare a comprehensive solid waste management plan to submit to the TDH.

Elements of the plan will include targets for waste reduction, recycling, incineration and landfill disposal. Additionally, the plan will contain siting criteria for landfills, incinerators and other solid waste facilities with the potential to impact the environment. By virtue of having a TDH-adopted plan, H-GAC will have the authority to review permit applications against these facility siting criteria.